

CLAIMS

What is claimed is:

1. 1. A wireless networked conferencing system, comprising:
 2. a base unit, including a network interface, for receiving a signal representative of acoustic information from a remote endpoint over a network,
 3. and a filter system, for filtering the received signal to produce a high-frequency component signal and a low-frequency component signal;
 4. a first audio driver, electrically coupled to the filter system, for receiving the low-frequency component signal and reproducing acoustic information represented thereby;
 5. a transmitter, coupled to the filter system, for transmitting the high-frequency component signal over a wireless channel; and
 6. a console, including a console receiver for receiving the high-frequency component signal transmitted over the wireless channel, and a second audio driver, coupled to the receiver, for reproducing the acoustic information represented by the signal;
 7. whereby power consumption of the second audio driver is reduced by eliminating the need to reproduce frequencies of the acoustic information by the second audio driver.

1 2. The system of claim 1, further comprising a delay module, coupled to the filter
2 system, for delaying by a delay duration the low-frequency component signal
3 relative to the high-frequency component signal.

1 3. The system of claim 2, wherein the delay duration is approximately 5
2 milliseconds.

1 4. The system of claim 2, wherein the delay duration is adjustable.

1 5. The system of claim 4, wherein the delay duration is selected based on an
2 acoustic response characterization of a room.

1 6. The system of claim 2, wherein the filter system and the delay module are
2 embodied in a digital processor.

1 7. The system of claim 6, wherein the base unit further includes a codec, for
2 digitizing the signal for processing by the digital processor.

1 8. The system of claim 1, wherein the filter system includes:
2 a high-pass crossover filter, for outputting the high-frequency component
3 signal; and
4 a low-pass crossover filter, for outputting the low-frequency component
5 signal.

1 9. The system of claim 8, wherein a crossover frequency associated with the
2 high-pass crossover filter and the low-pass crossover filter is approximately 400
3 hertz.

1 10. The system of claim 1, wherein the console further includes:
2 at least one microphone, for generating a local signal representative of
3 local acoustic information; and
4 a console transmitter, coupled to the microphone, for transmitting the
5 local signal over a second wireless channel to a base receiver coupled to the base
6 unit.

1 11. The system of claim 10, wherein the at least one microphone is coupled to the
2 console receiver via a processor configured to perform an echo cancellation
3 process on the local signal.

1 12. A networked conferencing system, comprising:

2 a base unit, including a network interface for receiving a signal

3 representative of acoustic information from a remote endpoint over a network,

4 and a filter system, for filtering the received signal to produce a high-frequency

5 component signal and a low-frequency component signal;

6 a first audio driver coupled to the filter system, for receiving the low-

7 frequency component signal and reproducing audio information represented

8 thereby; and

9 a console, electrically coupled to the base unit and located separate

10 therefrom, the console including a second audio driver for reproducing the

11 acoustic information represented by the high-frequency component signal;

12 whereby power consumption of the second audio driver is reduced by

13 eliminating the need to reproduce frequencies of the acoustic information by the

14 second audio driver.

1 13. The system of claim 12, further comprising a delay module coupled to the

2 filter system, for delaying the low frequency component signal relative to the

3 high frequency component signal.

1 14. A method for reducing power consumption of a console in a conferencing
2 system, comprising the steps of:

3 receiving a signal representative of acoustic information from a remote
4 endpoint;

5 filtering the received signal to produce a high-frequency component
6 signal and a low-frequency component signal;

7 passing the low-frequency component signal to a first audio driver for
8 reproduction of the acoustic information represented thereby;

9 transmitting the high-frequency component signal over a wireless
10 channel;

11 receiving, at the console, the high-frequency component signal
12 transmitted over the wireless channel; and

13 reproducing the acoustic information represented by the high frequency
14 component signal at a second audio driver located at the console.

1 15. The method of claim 14, further comprising the step of delaying the low-
2 frequency component signal relative to the high-frequency component signal by
3 a delay duration.

1 16. The method of claim 15, further comprising the step of adjusting the delay
2 duration in accordance with measured acoustic response characteristics of an
3 environment in which the system is located.

1 17. A method for reducing power consumption of an internally powered audio
2 device of an audio system, comprising the steps of:
3 filtering a received signal to produce a high-frequency component signal
4 and a low-frequency component signal;
5 passing the low-frequency component signal to a first audio driver for
6 reproduction of acoustic information represented thereby;
7 transmitting the high-frequency component signal over a wireless channel
8 to the internally powered audio device; and
9 reproducing acoustic information represented by the high frequency
10 component signal at a second audio driver located at the internally powered
11 audio device, the reproducing thereby reducing the power requirement of the
12 internally powered audio device by eliminating the need to reproduce
13 predefined frequencies of the signal at the second audio driver.

1 18. A wireless networked conferencing system, comprising:

2 means for receiving a signal representative of acoustic information from a

3 remote endpoint;

4 means for filtering the signal to produce a low-frequency component

5 signal and a high-frequency component signal;

6 means for transmitting the high-frequency component signal over a

7 wireless channel; and

8 means for reproducing the acoustic information represented by the high-

9 frequency component signal at a first audio driver and reproducing the acoustic

10 information represented by the low-frequency component signal at a second

11 audio driver.

1 19. The system of claim 18, further comprising means for delaying the low-

2 frequency component signal relative to the high-frequency component by a delay

3 duration.

1 20. The system of claim 19, further comprising means for adjusting the delay

2 duration in accordance with measured acoustic response characteristics of an

3 environment in which the system is located.